

REMARKS

The Office Action mailed March 8, 2007 has been carefully considered by Applicant. Reconsideration is respectfully requested in view of the foregoing claim amendments and the remarks that follow.

Claims 1 and 2 are amended to place the same in conformance with U.S. claiming practice. Claims 3-9 are added.

Claim Rejections

Claims 1 and 2 stand rejected under 35 USC §102(b) as being anticipated by European Patent No. 1 103 459 and in the alternative, by Thory U.S. Patent No. 5,846,028. The claim rejections are respectfully traversed.

Claim 1

Claim 1 recites a tensioning device for a riser that comprises two successive, interconnected telescopic tensioning units that are designed to operate separately to maintain a prescribed tension in the riser. This combination is neither taught nor suggested by the cited references.

EP '459

EP '459 teaches an arrangement that controls a compensated drill floor (7) and simultaneously neutralizes tidal influence on a drilling system. Two different arrangements (Figures 1 and 2, respectively) are depicted and described.

Figure 1 teaches a tidal structure (3) mounted below the drill floor and vertically movable along guides (4) by means of tidal cylinders (2). A telescopic tube (8) is arranged in the riser (6) to establish a continuous tubular connection between the drill floor and subsea installations (18), independently of the movement of the tidal structure and the drill floor (7). The tidal structure allows the cylinders (10) of the drill floor to compensate around their middle portion without regard to the tide level (17).

Figure 1 does not anticipate claim 1 because it specifically teaches only a single telescopic riser tensioner comprising the telescopic tube (8), the tensioning cylinders (2), the

structure (3) and the guides (4). Furthermore, Figure 1 teaches a heave compensated drill floor which maintains riser tensioning by compensating for the short fluctuating movements of the vessel (16) caused by rolling. This kind of tensioning system does not include two successive, interconnected telescopic units.

Figure 2 teaches a tidal structure (3) supported on the drill floor (7) by a wire system. The tidal structure (with installed rotational swivel (5)) keeps the riser pipe structure (69) in constant stretch against the vessel (16) via a compensated wire system and the drill floor compensator cylinders (10) and the tensioning compensators (26). "By arranging the wire system in this way, the necessary forces for keeping the riser pipe system (6) in tension are distributed equally among the drill floor compensator cylinders (10) and the tensioning compensators (26)." *See* column 4, lines 6-10 (emphasis added).

The Examiner refers to elements 10 and 26 as anticipating the claimed successive, interconnected telescopic tensioning units. However cylinders (10) and tensioning compensators (26) are not designed to operate separately to maintain the prescribed tension in the riser, per amended claim 1. Rather, as expressly noted in the EP '459, the tension in riser pipe system 6 is distributed by the wire system equally among the components 10 and 26. The components 10 and 26 cannot function separately because of the wire system.

Also, component 10 is not arranged mainly in the longitudinal direction of the riser, per claim 1. In fact, EP '459 fails altogether to teach or suggest the claimed evenly spaced hydraulic cylinders arranged in a peripherally encircling manner and mainly in the longitudinal direction of the riser.

As such, claim 1 is not anticipated by EP '459.

Thory '028

Thory '028 a riser tensioner including a plurality of cylinder units (1) connected to an operation floor (3) and to a riser-tensioner ring (6) to which a riser (7) is attached. Furthermore, Thory '028 teaches a variety of cylinder forms like single cylinder units and dual cylinder units.

Contrary to the Examiner's assertion, cylinders (25) are not successive, interconnected telescopic units. Also, cylinders (25) are connected to the riser via riser ring (6) and as such

function together and provide a single tensioning unit. Clearly cylinders (25) are not equivalent to the claimed two successive, interconnected telescopic units, which are designed to operate separately.

As such, claim 1 is not anticipated by Thory '028.

Claim 2

Claim 2 depends from claim 1 and is thus believed allowable for the reasons stated above, as well as the detailed subject matter recited therein.

The cited art neither teaches nor suggests wherein the upper or lower tensioning units alone maintain the prescribed tension in the riser in a situation where one of the tensioning units is out of operation.

Claim 3

Claim 3 is added and recites a method for maintaining tension in a riser that connects a subsea borehole with a floating installation of the surface of the sea. The method includes the steps of (1) compensating for rapid changes in the vertical position of the floating installation relative to the seabed with an upper tensioning unit that maintains a prescribed tension in the riser, (2) compensating for slower changes in the vertical position of the floating installation relative to the seabed with a lower tensioning unit relative to the upper tensioning units, the lower tensioning unit maintaining the prescribed tension in the riser, and (3) maintaining the prescribed tension in the riser with only one of the upper or lower tensioning units when the other one of the tensioning units is out of operation.

As discussed above regarding claim 2, the method steps of claim 3 are neither taught nor suggested by the cited references.

Claim 4

Claim 4 is added and recites an arrangement for tensioning a riser that has a lower end positioned toward a subsea borehole and an upper end positioned towards a floating installation on the surface of the sea. Upper and lower telescopic tensioning units are integrated into the riser and are successively interconnected to each other. The upper and

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Reply to Office Action of March 8, 2007

lower telescopic tensioning units operate separately to maintain a prescribed tension in the riser.

As discussed above, the art fails to teach or suggest upper and lower telescopic tensioning units that operate separately to maintain a prescribed tension in the riser. The art also fails to teach or suggest upper and lower telescopic tensioning units that are integrated into the riser and that are successively interconnected to each other.

As such, claim 4 is believed allowable over the art.

Claims 5-9

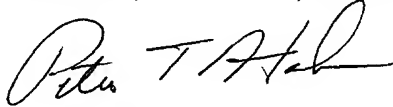
Claims 5-9 depend directly or indirectly from claim 4 and are thus also believed allowable for the reasons stated above, as well as the detailed subject matter recited therein.

Conclusion

The present application is thus believed in condition for allowance. Such action is respectfully requested.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Peter T. Holsen", is written over the printed name.

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